

REMARKS

Applicant respectfully requests the Examiner's reconsideration of the present application as amended. Claims 1-22 remain in the application.

35 U.S.C. § 102 Rejection

Claim 1-3, 7-8, 11-14, 18, 19 and 21 are rejected under 35 U.S.C. 102 (b) as being anticipated by Aho et al., Compilers: Principles, Techniques, and Tools. Applicant respectfully submits that Aho (page 10, figure 1.9; page 463-512, in particular page 464)
5 does not teach the subject matter as claimed in claims 1-3, 7-8, 11-14, 18, 19 and 21 of the instant application.

Aho discloses and teaches a basic concept of a compiler that reads a program written in one language, i.e., the source language, and translates it into an equivalent program in another language, the target language. A compiler discloses in figure 1.9,
10 page 10 a typical decomposition of a compiler which includes multiple phases that undergo analysis-synthesis process.

Specifically, Aho teaches a basic compilation process that includes intermediate code generation from page 463 to 512. On page 464, Aho illustrates a graphical representation of a syntax tree.

15 Aho does not disclose a non-processor-specific abstract routine generator for receiving a data stream comprising a multimedia routine and for outputting a processor-specific abstract representation thereof during runtime; and a translator for said abstract routine generator for receiving said non-processor-specific abstract representation and for outputting processor specific code translated from said non-
20 processor-specific abstract representation for processing multimedia input data during said runtime.

The subject matter of Claims 1-3, 7-8, 11-14, 18, 19 and 21 of the instant application relates to an abstract routine generator for receiving a data stream comprising a multimedia routine and for outputting a non-processor-specific abstract representation thereof during runtime; and a translator for said abstract routine generator for receiving said non-processor-specific abstract representation and for outputting **processor-specific code** translated from said non-processor-specific abstract representation for processing multimedia input data during said runtime. The abstract routine generator generates a non-processor-specific abstract representation of the code, commonly in the form of a directed acyclic graph during runtime. For example, the bi-directional MPEG 2 motion compensation can be implemented using a set of sixty-four different but very similar routines, that can be generated by a loop in the abstract image generator.

The claimed **processor-specific** code translated from **non-processor specific abstract presentation** and the method of generating the same in the instant invention is patentably distinct from the high level codes, intermediate level codes and machine-executable object codes as disclosed in Aho.

In addition, Aho discloses generic common codes and such codes generating process that has no relevance with the teachings in the instant invention.

Accordingly, Aho does not anticipate the claimed invention.

Claims 12, 13, 14, 18, 19 and 21 correspond to apparatus claims 1, 2, 3, 7, 8 and 11.

Therefore, Applicant respectfully requests the Examiner withdraw 35 U.S.C 102 rejection.

35 U.S.C. § 103 Rejection

4. Claims 5-6, 10, 16, 17 and 20 are rejected under 35 U.S.C 103 (a) as being unpatentable over Aho et al. Compilers: Principles, Techniques, and Tools.

Aho discloses and teaches a basic concept of a compiler that reads a program written in one language, i.e., the source language, and translates it into an equivalent program in another language, the target language. A compiler discloses in figure 1.9, page 10 a typical decomposition of a compiler which includes multiple phases that
5 undergo analysis-synthesis process.

Aho does not teach or suggest a non-processor-specific abstract routine generator for receiving a data stream comprising a multimedia routine and for outputting a non-processor-specific abstract representation thereof during runtime;
10 and a translator for said abstract routine generator for receiving said non-processor-specific abstract representation and for outputting processor specific code translated from said non-processor-specific abstract representation for processing multimedia input data during said runtime. In addition, Aho does not suggest to implement the compiling all data in a piece of software or code.

15 Therefore, Applicant respectfully requests that the Examiner withdraw the rejection under 35 U.S.C. §103(a).

5. Claims 9 and 22 under 35 U.S.C. §103(a) as being unpatentable over Ansari
20 (U.S. Pat. No. 5,307,492) in view of "Dictionary of Computing".

Claims 9 and 22 are cancelled. It should be noted that Applicant has elected to amend said Claims solely for the purpose of expediting the patent application process in a manner consistent with the PTO's Patent Business Goals, 65 Fed. Reg. 54603
25 (9/8/00). In making this amendment, Applicant has not and does not in any way narrow the scope of protection to which Applicant considers the invention herein to be entitled. In addition, Applicant does not concede, in any way, that the subject matter of such claim was in fact taught or disclosed by the cited prior art. Rather, Applicant reserves Applicant's right to pursue such protection at a later point in time and merely seeks to
30 pursue protection for the subject matter presented in this submission.

6. Claims 1-3, 7-8, 10-14 and 18-21 are rejected under 35 U.S.C. 103 (a) as being unpatentable over Benson (USPN 5,307,492).

Benson does not teach or suggest an abstract routine generator for receiving a data stream comprising a multimedia routine and for outputting a generic abstract representation thereof during runtime; and a translator for said abstract routine generator for receiving said abstract representation and for outputting processor specific code translated from said abstract representation for processing multimedia input data during said runtime.

Therefore, Applicant respectfully requests that the Examiner withdraw the rejection under 35 U.S.C. §103(a).

7. Claims 4-6 and 15-17 under 35 U.S.C. §103(a) as being unpatentable over Ansari (U.S. Pat. No. 6,473,897) in view of Benson (U.S. Pat. No. 5,307,492).

Ansari claims and discloses a computer-implemented method to be performed by a compiler comprising: analyzing a source code segment which is to be customized to a plurality of different processor types; determining whether generating customized sections of object code for the source code segment to execute on each of the plurality of different processor types, respectively, would provide a performance advantage over generating a on-customized version of object code; and If so, generating object code for the source code segment, including generating a plurality of sections for the source code segment, each of the plurality of section s being object code for the source code segment customized for one of the plurality of different processor types, and generating a control section that causes a selected one of the plurality of sections to e called during execution of the object code in accordance with an executing processor's processor type.

Ansari does not teach or suggest an abstract routine generator for receiving a data stream comprising a multimedia routine and for outputting a non-processor-specific abstract representation thereof during runtime; and a translator for said abstract routine generator for receiving said non-processor-specific abstract representation and for outputting processor-specific code translated from said non-

processor-specific abstract representation for processing multimedia input data during said runtime.

Thus, a person skilled in the art would not be able to make the claimed invention with reference to Ansari.

5 Therefore, Applicant respectfully requests that the Examiner withdraw the rejection under 35 U.S.C. §103(a).

SUMMARY

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Claims 1-8 and 10-21 are pending. No new matter has been added. Applicant respectfully submits that, in view of the amendments and discussion set forth herein, the pending claims are patentable over the prior art.

15 The examiner is invited to call Ivy Y. Mei at 650-474-8400 to discuss the pending claims.

Respectfully Submitted,

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